



# UNITED STATES PATENT AND TRADEMARK OFFICE

52  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,838	12/18/2001	Florian Max Kehlstadt	09623C-031610US	4261

20350 7590 09/08/2004

TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER

BELL, PAUL A

ART UNIT	PAPER NUMBER
----------	--------------

2675

DATE MAILED: 09/08/2004 8

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/025,838

**Applicant(s)**

KEHLSTADT ET AL.

**Examiner**

PAUL A BELL

**Art Unit**

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 2,5,6,9,13,14,16,17 and 29 is/are allowed.  
6) ☒ Claim(s) 1,3,4,7,8,10-12,15 and 18-28 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Lilenfield (6,545,667).

With regard to claim 1 Lilenfield teaches a mouse ( column 1, lines 15-20 )  
**comprising:** a housing for supporting a user's hand ( figure 4, item 11 ), first and second buttons mounted on said housing (figure 4, items 12 and 14), a pointing sensor mounted in said housing between said buttons for providing a pointing signal (figure 4, item 16), a contour on said housing for receiving a finger of said user, said contour having curvature in at least one directions ( figure 4 illustrates the outline of a body with a finger on it and it has curvature everywhere), a solid-state touch sensor in said contour for detecting movement of said finger along said contour ( figure 4, item 16, column 5, lines 60-65 ).

With regard to claim 8, Lilenfield teaches the device of claim 1 further  
comprising: a sensory feedback element for providing feedback to a user  
corresponding to an amount of movement of said finger in said contour (figure 6a,

Art Unit: 2675

column 1, lines 33-51 wherein a cursor on the screen would have provided "eye" sensory feedback ).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 , 4, 12, 25, 26, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lilenfield (6,545,667) in view of Mabusth (4,550,221).

With regard to claim 3 Lilenfield does not illustrate the details, "wherein said touch sensor comprises: at least two electrodes mounted in said contour, and a capacitive detection circuit connected to said electrodes for detecting a change in capacitance due to a contact of said finger with said electrodes" . Lilenfield instead teaches a touch sensor on the contour and does not teach what kind of conventional touch sensor it is.

Mabusth illustrates it is a common practice to make touch sensors with at least two electrodes and form a capacitive detection circuit (SEE Mabusth figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the Lilenfield touch pad part like the one illustrated by Mabusth because since Lilenfield lacked details on how to implement the touch pad part one would have been motivated to use prior proven concepts that tend to be cost effective and expedient.

With regard to claim 12 the combination of Lilienfield and Mabusth teaches a pointing device (SEE Lilienfield column 1, lines 15-20) comprising: a housing ( SEE Lilienfield figure 4, item 11), a pointing sensor mounted in said housing for providing a pointing signal, (SEE Lilienfield figure 4, item 16) a plurality of discrete electrodes mounted on said housing to detect movement of a finger (SEE Mabusth figure 3 which as implemented on surface forms part of body of Lilienfield ), wherein at least first and second electrodes are electrically connected, a third electrode isolated from said first and second electrodes by said housing (SEE Mabusth figure 3 where it is inherent that the three or more electrodes are each electrically connected to a sensor or they would not work and further each of the three or more electrodes are isolated from each other or it would short out) said third electrode being mounted where a finger will contact said third electrode in between contacting said first and second electrodes (SEE Mabusth figure 3 where It is arbitrary what electrode we call first second and third in figure 3 so therefore it reads on this broad language), and a circuit, connected to said electrodes, for detecting contact of said finger with said electrodes (SEE Mabusth figure 5).

With regard to claim 25 the combination of Lilienfield and Mabusth teaches a mouse (SEE Lilienfield column 1, lines 15-20) **comprising:** a housing for supporting a user's hand (SEE Lilienfield figure 4, item 11), first and second buttons mounted on said housing ( SEE Lilienfield figure 4, items 12 and 14), a pointing sensor mounted in said housing for providing a pointing signal (SEE Lilienfield figure 4, item 16), a solid-state touch sensor having at least two discrete electrodes mounted between said

Art Unit: 2675

buttons (SEE Mabusth figure 3 which as implemented on surface forms part of body of Lilienfield ), said electrodes being separated with a portion of said housing in between said electrodes (SEE Mabusth figure 3 where it is inherent that the three or more electrodes are each electrically connected to a sensor or they would not work and further each of the three or more electrodes are isolated from each other or it would short out ), said sensor detecting movement of a finger from one electrode to another (SEE Mabusth figure 5 ).

With regard to claim 4 all of the limitations were addressed by the combination of Lilienfield and Mabusth in claims 3, 12 and 25 above.

With regard to claim 26 most of the limitations were addressed already by the combination of Lilienfield and Mabusth above in claims 1 and 3 above and with regard to the additional limitation "a control circuit, in said pointing device, for detecting a speed of movement between said two electrodes, and sending a movement signal to a computer for a number of movements corresponding to said speed (SEE Mabusth figure 10 reads on "control circuit" where it is obvious that item 10 monitors the speed of a finger moving on the touch surface because irregardless of the finger moving slow or fast item 10 will monitor it and have a cursor in relation to the speed of finger move, note this claim language is very broad here).

With regard to claim 27 the combination of Lilienfield and Mabusth suggest "wherein said movement signal comprises a scrollin signal (SEE Mabusth column 6, lines 55-63).

With regard to claim 28 most of the limitations were addressed already by the combination of Lilenfield and Mabusth above in claims 1 and 3 above and with regard to the additional limitation "sensor using capacitive sensing with a galvanic contact by said finger" (SEE Mabusth column 3, lines 1-15 and figure 7).

5. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lilenfield (6,545,667) in view of Stephan et al. (5,748,185).

With regard to claim 15 Lilenfield teaches a mouse (SEE Lilenfield column 1, lines 15-20 ) **comprising**: a housing for supporting a user's hand (SEE Lilenfield figure 4, item 11), first and second buttons mounted on said housing (SEE Lilenfield figure 4, items 12 and 14), a pointing sensor mounted in said housing for providing a pointing signal ( SEE Lilenfield figure 4, item 16 ).

Lilenfield does not illustrate "a stationary scrolling sensor mounted on said housing between said buttons" . Lilenfield in the embodiment show in figure 4 instead illustrates his pointing device is mounted between the buttons and does not explicitly illustrate having a scrolling sensor in this embodiment, but NOTE Lilenfield does have an illustration of an embodiment in figure 2 that does have both a scrolling device and a pointing device but now the scrolling device is between the buttons and the pointing device is off to the side. Since Lilenfield separately demonstrates in two embodiments the scrolling device and pointing device located between the buttons it would have been obvious to put both of them between the buttons in a third embodiment because the mere rearrangement of parts absent criticality is considered obvious.

And in addition Stephan et al. teaches "a stationary scrolling sensor" and a "pointing device" located right by each other (See Stephan et al. figure 3, items 86, 88, and 90).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a stationary scrolling sensor and a pointing device located by each other as taught by Stephan et al. and to have them between the buttons as taught by Lilenfield because the mere rearrangement of parts absent criticality is considered obvious and as further motivation it requires less movement of the hand to operate this way of having all controls more centralized.

With further regard to claim 15 the combination of Lilenfield and Stephan et al. teaches said scrolling sensor providing a scrolling command in response to a movement of a users finger across said stationary sensor (SEE Stephan et al. figure 4), and continuing to provide said scrolling command in response to said finger reaching one end of said stationary scrolling sensor without lifting off (SEE Stephan et al. figure 4, item 131).

With regard to claim 7 all of the limitations were addressed by the combination of Lilenfield and Stephen et al. in claim 15.

6. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lilenfield (6,545,667) in view of Vaghefi et al. (6,429,851).

With regard to claim 10 most of the limitations were addressed above by Lilenfield in claims 1 and 8 but Lilenfield does not illustrate "wherein said sensory feedback element comprises a speaker mounted in said pointing device".

Vaghefi et al. teaches a speaker mounted in a pointing device (figure 17 item 34).



Art Unit: 2675

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Lilenfield apparatus to have a speaker as taught by Vaghefi et al. because Vaghefi et al teaches this is more child friendly.

With regard to claim 11 most of the limitations were addressed above by Lilenfield in claims 1 and 8 and the combination of Lilenfield teaches "wherein said contour is at least partially translucent, and further comprising a light emitting element mounted in said pointing device" (SEE Vaghefi et al. column 2, lines 20-37).

7. Claims 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaghefi et al. (6,429,851).

With regard to claim 18 Vaghefi et al. teaches a pointing device comprising: a housing for supporting a user's hand (figure 6, item 10), a pointing sensor mounted in said housing for providing a pointing signal (figure 8, item 40, column 1, lines 30-34), a scrolling activator for providing a scrolling signal (since column 2, lines 20-37 teach it's a standard functioning mouse the use feature "a scrolling activator for providing a scrolling signal" is viewed as merely directed towards an "OBVIOUS INTENDED USE" of the mouse in a GUI) a speaker mounted in said pointing device (column 4, lines 7-10, figure 17, item 34), for emanating sounds corresponding to an aspect of said scrolling signal (abstract "normal operation of the buttons causes the production of a sound or sounds", for example column 4, line 11, "when the track ball is rotated", therefore it is obvious that as the mouse is moving the scroll bar in a GUI a sound will be produced and this simply reads on the broad language of this claim).

Art Unit: 2675

With regard to claim 19 Vaghefi et al. teaches the pointing device of claim 18 wherein said device is a mouse (column 2, lines 50-53).

With regard to claim 20 Vaghefi et al. teaches a pointing device for use with a computer system (column 2, lines 21-25), comprising: a housing for supporting a user's hand (figure 6, item 10); a pointing sensor mounted in said housing for providing a pointing signal (figure 8, item 40, column 1, lines 30-34), and a notification element mounted in said pointing device for providing a notification to a user responsive to an event received by said computer system over a network (column 2, lines 21-37 "a network" broad term such as "points interconnected by communication channels" and GUI mouse and its computer reads on it).

With regard to claim 21 Vaghefi et al. teaches the pointing device of claim 20 wherein said device is a mouse (column 2, lines 50-53).

With regard to claim 22 Vaghefi et al. teaches the pointing device of claim 20 wherein said notification element is a light emitter (column 2, lines 30-33).

With regard to claim 23 Vaghefi et al. teaches the pointing device of claim 22 wherein said light emitter blinks to provide said notification (column 2, lines 30-33).

With regard to claim 24 Vaghefi et al. teaches the pointing device of claim 20 wherein said notification element is a speaker (figure 17, item 34).

***Allowable Subject Matter***

8. Claims 2, 5, 6, 9, 13, 14, 16, and 17, 29 are allowed.
9. The following is a statement of reasons for the indication of allowable subject matter:

Art Unit: 2675

With regard to claim 2 the prior art of record does not teach, "wherein said contour comprises a trence shaped to match a curve traced by a fingertip of said finger during a bending of said finger about a knuckle of said finger" in combination with all the other limitations of the claim.

With regard to claim 9 the prior art of record does not teach, "wherein said sensory feedback element comprises a plurality of tactile formations on a surface of said contour" in combination with all the other limitations of the claim.

With regard to claims 5, 6, 13, 14 and 29 the prior art of record does not teach, "a controller connected to an output of said comparison circuit, to said clamp-high circuit and to said clamp low circuit for providing said clamp-high and clamp-low control signals and generating an output signal in response to measuring an amount of time between transitions of said output of said comparison circuit" in combination with all the other limitations of the claim.

With regard to claim 16 and 17 the prior art of record does not teach, "comparing said amounts of time to a calibration value corresponding to the absence of a finger on said electrodes" in combination with all the other limitations of the claim.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1, 3, 8 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's arguments, the recitation "mouse" in claims 1 and 15 has not been given patentable weight because the recitation occurs in the preamble.

A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535

Art Unit: 2675

F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In addition the simple act of giving an apparatus "used" as a pointing device a commonly used "title" such as "mouse" does not automatically require certain specific limitations be read into the claim. The claim must still clearly claim each specific limitation in the form of a very specific structural detail or function regardless of that limitation being considered obvious or even inherent by applicant and especially if that limitation is the one that makes the combination of limitations allowable. Also the examiner has seen in the prior art of patents the title "mouse" used for pointing devices that have taken on all kinds of shapes and functionality and it was always the specific new limitation directed towards a specific structure feature or functionality that was considered novel, not in the title.

#### Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019.

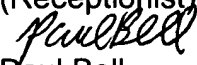
If attempts to reach the examiner by telephone are unsuccessful the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377 can help with any inquiry of a general nature or relating to the status of this application.


Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Or Faxed to: (703) 872-9306

Or Hand-delivered to: Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

  
Paul Bell  
Art unit 2675  
September 5, 2004

  
DENNIS-DOON CHOW  
PRIMARY EXAMINER